Listing of claims

Claims 1-41 (canceled)

42. (New) A nucleic acid sequence encoding a modified single chain Fv molecule, wherein said single chain Fv molecule comprises a heavy chain variable domain and a light chain variable domain that interact to form an antigen binding site,

wherein said heavy chain variable domain comprises an intra-heavy chain inter-domain interface region and said light chain variable domain comprises an intra-light chain inter-domain interface region

and wherein at least one amino acid in an intrachain inter-domain interface region is modified so as to decrease the hydrophobicity in said intra-chain inter-domain interface region.

43.(New) A nucleic acid sequence encoding a modified polypeptide comprising a heavy chain variable domain, wherein said heavy chain variable domain comprises an intra-heavy chain inter-domain interface region,

and wherein at least one amino acid in said intra-heavy chain inter-domain interface region is modified so as to decrease the hydrophobicity in said region.

44. (New) The nucleic acid sequence according to claim 43, wherein said intra-heavy chain inter-domain interface comprises residues 9, 10, 11, 13, 14, 41, 42, 43, 84, 87, 89, 105, 108, 110, 112, 113 of said heavy chain variable domain.

45.(New) A nucleic acid sequence encoding a modified polypeptide comprising a light chain variable domain, wherein said light chain variable domain comprises an intra-light chain inter-domain interface region,

and wherein at least one amino acid in said intra-light chain inter-domain interface region is modified so as to decrease the hydrophobicity in said region.

46. (New) The nucleic acid sequence according to claim 45, wherein said inter-domain interface comprises residues 9, 10, 12, 15, 39, 40, 41, 80, 81, 83, 103, 105, 106, 106A, 107, 108 of said light chain variable domain.

47. (New) The nucleic acid sequence according to claim 42 in which said modification comprises insertion of one or more hydrophilic amino acids or deletion of one or more hydrophobic amino acids.

48. (New) The nucleic acid sequence according to claim 42 in which said modification comprises any two or more of:

a) a substitution of one or more amino acids with amino acids which are more hydrophilic than the one or more amino acids being substituted for;

b) an insertion of one or more hydrophilic amino acids; and

c) a deletion of one or more hydrophobic amino acids.

49. (New) The nucleic acid sequence according to claim 47 or 48 in which said substituted or inserted amino acid is selected from the group consisting of Asn, Asp, Arg, Gln, Glu, Gly, His, Lys, Ser, and Thr.

50. (New). The nucleic acid sequence according to claim 43, 44, or 46, further comprising a contiguous sequence which encodes one or more additional moieties.

51. (New) The nucleic acid sequence according to claim 50 in which at least one of said additional moieties is a toxin, a cytokine, or a reporter enzyme.

52. (New) The nucleic acid sequence according to claim 51 in which at least one of said additional moieties is at least part of a surface protein of an organism.

53. (New) The nucleic acid sequence according to claim 52 in which said organism is a filamentous bacteriophage.

54. (New) The nucleic acid sequence according to claim 53 in which said surface protein is the geneIII protein.

55. (New) The nucleic acid sequence according to claim 50 in which at least one of said additional moieties is capable of binding a metal ion.

56. (New) The nucleic acid sequence according to claim 55 in which at least one of said additional moieties comprises at least five histidines.

57. (New) The nucleic acid sequence according to claim 50 in which said additional moiety is a labeling tag peptide.

58. (New) The nucleic acid sequence according to claim 57 in which said labeling tag peptide is c-myc or FLAG.

59. (New) The nucleic acid sequence according to claim 50 in which said additional moiety comprises a peptide comprising an association domain..

60. (New) The nucleic acid sequence according to claim 59 in which said association domain comprises a leucine zipper or a helix-turn-helix motif.

61. (New) A vector comprising a nucleic acid sequence according to claim 42, 43, or 44.

62. (New) A host cell comprising a vector according to claim 61.

63. (New) The nucleic acid sequence according to claim 42, wherein at least one amino acid in said intra-heavy chain inter-domain interface and at least one amino acid in said intra-light chain inter-domain interface is modified.